



PCE/2824

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Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

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PTO/SB21 (08-00)

|   |                        |                 |
|---|------------------------|-----------------|
| <b>TRANSMITTAL FORM</b><br>(to be used for all correspondence after initial filing) | Application Number     | 09/929,542      |
|   | Filing Date            | August 13, 2001 |
|   | First Named Inventor   | Hieu Van Tran   |
|   | Group Art Unit         | 2824            |
|   | Examiner Name          | Dinh, Son T.    |
| Total Number of Pages in This Submission  | Attorney Docket Number | 2102397-991720  |

| ENCLOSURES (check all that apply)  |   |  |
|--|---|--|
| <input checked="" type="checkbox"/> Fee Transmittal Form                     | <input type="checkbox"/> Assignment Papers (for an Application)                         | <input type="checkbox"/> After Allowance Communication to Group                            |
| <input checked="" type="checkbox"/> Fee Attached                             | <input type="checkbox"/> Drawing(s)   | <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences        |
| <input checked="" type="checkbox"/> Amendment/Reply                          | <input type="checkbox"/> Licensing-related Papers                                       | <input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief) |
| <input type="checkbox"/> After Final   | <input type="checkbox"/> Petition to Convert to a Provisional Application               | <input type="checkbox"/> Proprietary Information   |
| <input type="checkbox"/> Affidavits/declaration(s)                           | <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address | <input type="checkbox"/> Status Letter   |
| <input type="checkbox"/> Extension of Time Request                           | <input type="checkbox"/> Terminal Disclaimer  | <input checked="" type="checkbox"/> Additional Enclosure(s) (please identify below):       |
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| <input type="checkbox"/> Information Disclosure Statement                    | <input type="checkbox"/> CD, Number of CD(s) _____                                      | Check No. 536914<br>\$1,608.00   |
| <input type="checkbox"/> Certified Copy of Priority Document(s)              | Remarks   |  |
| <input type="checkbox"/> Response to Missing Parts/Incomplete Application    |   |  |
| <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53 |   |  |

| SIGNATURE OF APPLICANT, ATTORNEY OR AGENT |   |
|---|---|
| Firm or Individual name                   | Edward B. Weller (Reg. No. 37,468)<br>Gray, Cary Ware & Freidenrich |
| Signature                                 |   |
| Date                                      | May 19, 2003  |

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| Typed or printed name   | Susan Pingue |      |              |
| Signature   |              | Date | May 19, 2003 |

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**FEE TRANSMITTAL  
for FY 2003**

Effective 01/01/2003. Patent fees are subject to annual revision.

☐ Applicant claims small entity status. See 37 CFR 1.27**TOTAL AMOUNT OF PAYMENT** (\$)**1,608.00****Complete if Known**

|                      |                 |
|----------------------|-----------------|
| Application Number   | 09/929,542      |
| Filing Date          | August 13, 2001 |
| First Named Inventor | Hieu Van Tran   |
| Examiner Name        | Dinh, Son T.    |
| Art Unit             | 2824            |
| Attorney Docket No.  | 2102397-991720  |

**METHOD OF PAYMENT (check all that apply)**
☒ Check ☐ Credit Card ☐ Money Order ☐ Other ☐ None

 Deposit  
Account  
Number  
  
 Deposit  
Account  
Name

07-1896

Gray Cary Ware &amp; Freidenrich LLP

The Commissioner is authorized to: (check all that apply)

☐ Charge (fees) indicated below. ☒ Credit any overpayments☒ Charge any additional fee(s) during the pendency of this application☐ Charge fee(s) indicated below, except for filing fee to the above-identified deposit account.**FEE CALCULATION****1. BASIC FILING FEE**

| Large Entity |          | Small Entity |          | Fee Description        | Fee Paid |
|--------------|----------|--------------|----------|------------------------|----------|
| Fee Code     | Fee (\$) | Fee Code     | Fee (\$) |                        |          |
| 1001         | 750      | 2001         | 375      | Utility filing fee     |          |
| 1002         | 330      | 2002         | 165      | Design filing fee      |          |
| 1003         | 520      | 2003         | 260      | Plant filing fee       |          |
| 1004         | 750      | 2004         | 375      | Reissue filing fee     |          |
| 1005         | 160      | 2005         | 80       | Provisional filing fee |          |

**SUBTOTAL (1) (\$)****2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE**

| Total Claims       |     | Extra Claims |    | Fee from below |    | Fee Paid |
|--------------------|-----|--------------|----|----------------|----|----------|
|                    |     |              |    |                |    |          |
|                    | 104 | - 80** =     | 24 | X              | 18 | 432      |
| Independent Claims | 31  | - 17** =     | 14 | X              | 84 | 1,176    |
| Multiple Dependent |     |              |    | X              |    |          |

| Large Entity |          | Small Entity |          | Fee Description  |
|--------------|----------|--------------|----------|--|
| Fee Code     | Fee (\$) | Fee Code     | Fee (\$) |  |
| 1202         | 18       | 2202         | 9        | Claims in excess of 20                                     |
| 1201         | 84       | 2201         | 42       | Independent claims in excess of 3                          |
| 1203         | 280      | 2203         | 140      | Multiple dependent claim, if not paid                      |
| 1204         | 84       | 2204         | 42       | ** Reissue independent claims over original patent         |
| 1205         | 18       | 2205         | 9        | ** Reissue claims in excess of 20 and over original patent |

**SUBTOTAL (2) (\$)**

\*\*or number previously paid, if greater; For Reissues, see above

**FEE CALCULATION (continued)****3. ADDITIONAL FEES**

| Large Entity |          | Small Entity |          | Fee Description  | Fee Paid |
|--------------|----------|--------------|----------|--|----------|
| Fee Code     | Fee (\$) | Fee Code     | Fee (\$) |  |          |
| 1051         | 130      | 2051         | 65       | Surcharge - late filing fee or oath  |          |
| 1052         | 50       | 2052         | 25       | Surcharge - late provisional filing fee or cover sheet                     |          |
| 1053         | 130      | 1053         | 130      | Non-English specification  |          |
| 1812         | 2,520    | 1812         | 2,520    | For filing a request for ex parte reexamination                            |          |
| 1804         | 920*     | 1804         | 920*     | Requesting publication of SIR prior to Examiner action                     |          |
| 1805         | 1,840*   | 1805         | 1,840*   | Requesting publication of SIR after Examiner action                        |          |
| 1251         | 110      | 2251         | 55       | Extension for reply within first month                                     |          |
| 1252         | 410      | 2252         | 205      | Extension for reply within second month                                    |          |
| 1253         | 930      | 2253         | 465      | Extension for reply within third month                                     |          |
| 1254         | 1,450    | 2254         | 725      | Extension for reply within fourth month                                    |          |
| 1255         | 1,970    | 2255         | 985      | Extension for reply within fifth month                                     |          |
| 1401         | 320      | 2401         | 160      | Notice of Appeal   |          |
| 1402         | 320      | 2402         | 160      | Filing a brief in support of an appeal                                     |          |
| 1403         | 280      | 2403         | 140      | Request for oral hearing   |          |
| 1451         | 1,510    | 1451         | 1,510    | Petition to institute a public use proceeding                              |          |
| 1452         | 110      | 2452         | 55       | Petition to revive - unavoidable   |          |
| 1453         | 1,300    | 2453         | 650      | Petition to revive - unintentional   |          |
| 1501         | 1,300    | 2501         | 650      | Utility issue fee (or reissue)   |          |
| 1502         | 470      | 2502         | 235      | Design issue fee   |          |
| 1503         | 630      | 2503         | 315      | Plant issue fee  |          |
| 1460         | 130      | 1460         | 130      | Petitions to the Commissioner  |          |
| 1807         | 50       | 1807         | 50       | Processing fee under 37 CFR 1.17(q)  |          |
| 1806         | 180      | 1806         | 180      | Submission of Information Disclosure Stmt                                  |          |
| 8021         | 40       | 8021         | 40       | Recording each patent assignment per property (times number of properties) |          |
| 1809         | 750      | 2809         | 375      | Filing a submission after final rejection (37 CFR § 1.129(a))              |          |
| 1810         | 750      | 2810         | 375      | For each additional invention to be examined (37 CFR § 1.129(b))           |          |
| 1801         | 750      | 2801         | 375      | Request for Continued Examination (RCE)                                    |          |
| 1802         | 900      | 1802         | 900      | Request for expedited examination of a design application                  |          |

Other fee (specify) \_\_\_\_\_

\* Reduced by Basic Filing Fee Paid

**SUBTOTAL (3) (\$)****SUBMITTED BY**

Complete( if applicable)

|                   |                    |                                   |              |           |                |
|-------------------|--------------------|-----------------------------------|--------------|-----------|----------------|
| Name (Print/Type) | Edward B. Weller   | Registration No. (Attorney/Agent) | 37,468       | Telephone | (650) 833-2436 |
| Signature         | <i>Ed B Weller</i> | Date                              | May 19, 2003 |           |                |

**WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.**

This collection of information is required by 37 CFR 1.17 and 1.27. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.

Gray Cary\EM7135195.1



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Hieu Van TRAN et al.

Serial No.: 09/929,542

Group Art Unit: 2824

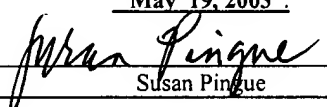
Filed: August 13, 2001

Examiner: Dinh, Son T.

Title: **ARRAY ARCHITECTURE AND OPERATING METHODS FOR DIGITAL MULTILEVEL NONVOLATILE MEMORY INTEGRATED CIRCUIT SYSTEM**

Certificate of Mailing

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\_\_\_\_\_  
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SUPPLEMENTAL AMENDMENT

**Box RCE**  
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Washington, DC. 20231

|                   |                   |
|-------------------|-------------------|
| 06/03/2003 JADD01 | 00000059 09929542 |
| 01 FC:1201        | 1176.00 DP        |
| 02 FC:1202        | 432.00 DP         |

Sir:

Please amend the application to include new claims 84-108 as follows:

84. (new) A data storage comprising:

a plurality of regular memory arrays, each regular memory array including a plurality of regular memory cells;

at least one regular memory decoder coupled to the regular memory arrays, each regular memory decoder configured to provide bias signals to selected ones of the plurality of regular memory cells;

a spare memory array, each spare memory array including a plurality of spare memory cells; and

a spare memory decoder coupled to the spare memory array and configured to provide bias signals to selected ones of the plurality of spare memory cells of said spare memory array.